

APPENDIX 1

WILDLIFE PROTECTION GUIDELINES: PRIBILOF ISLANDS

ALEUTIAN ISLANDS SUBAREA CONTINGENCY PLAN FOR OIL AND HAZARDOUS SUBSTANCE SPILLS AND RELEASES

**Pribilof Islands Wildlife Protection Subgroup
August 6, 1998**

(Revised May 8, 2001)

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100. Introduction.

101. Background and Objectives.

The Pribilof Islands, which are comprised of St. Paul, St. George, Walrus, Otter, and Sivutch Islands, are located in the Bering Sea approximately 300 miles off the west coast of Alaska. These islands and their offshore areas provide important seasonal feeding, breeding, reproducing, and staging grounds for significant numbers of migratory birds and marine mammals. Many of these wildlife species also serve as important subsistence resources.

Because of their interdependence with the marine environment, it is possible that these wildlife may -- during an oil spill that affects offshore or coastal areas -- contact oil on the water surface and/or along shorelines, marshes, or tide lands. The number of individuals and species affected will depend on several variables, such as the location and size of the spill, the characteristics of the oil, weather and water conditions, types of habitats affected, and the time of year the spill occurs.

In January 1997, the Pribilof Islands Wildlife Protection Subgroup (Pribilof Islands Subgroup)¹ was created by the Pribilof Island Working Group to develop wildlife protection guidelines specific to St. Paul and St. George Island (hereafter referred to as the Pribilofs). The resulting *Wildlife Protection Guidelines: Pribilof Islands (Pribilof Guidelines)*, which are contained herein, tier off state-wide wildlife protection guidance in the Alaska Regional Response Team's (RRT) *Wildlife Protection Guidelines for Alaska (Alaska Guidelines)*. The *Alaska Guidelines*, which are included as Annex G of the *Alaska Federal/State Preparedness Plan for Response to Oil and Hazardous Substance Discharges/Releases (Unified Plan)*, were prepared by the Alaska RRT Wildlife Protection Working Group (WPWG). The *Pribilof Guidelines* are Appendix 1 of the *Unified Plan, Aleutian Islands Subarea Contingency Plan for Oil and Hazardous Substance Spills and Releases (Aleutians SCP)*.

The *Pribilof Guidelines* support the three wildlife response strategies that form the foundation of the *Alaska Guidelines*. Those strategies are as follows:

- Primary response strategy, which emphasizes controlling the release and spread of spilled oil at the source to prevent or reduce contamination of potentially-affected species and/or their habitat.
- Secondary response strategy, which emphasizes keeping potentially-affected wildlife away from oiled areas through the use of deterrent techniques.

¹ Pribilof Islands Subgroup members included: State of Alaska (Mark Fink); U.S. Department of the Interior, Fish and Wildlife Service (Art Sowls); U.S. Department of the Interior, Office of Environmental Policy and Compliance (Pamela Bergmann)—Subgroup Chairperson; U.S. Department of Commerce, National Marine Fisheries Service (Dave Cormany); Tribal Government of St. Paul (Aqualina Bourdukofsky); St. George Tanaq Corporation, Bret Coburn; Tanadgusix Corporation, Ron Philemonoff; City of St. Paul (John Mercurief); Delta Western (Dennis Bourdukofsky); Icicle Seafoods (Mike Clutter); Trident Seafoods (Doug Donegan); and Unisea (Ted Compton).

- Tertiary response strategy, which is a last-resort strategy, which addresses the potential capture and treatment of oiled wildlife.

In addition, the *Pribilof Guidelines* also address measures to help ensure that overall response activities are conducted in a manner that minimizes adverse effects to wildlife, such as the prevention of unnecessary or illegal disturbance to sensitive species and habitats. See Sections 302.A. and 402.A. below and Sections 301.B.1 and 302.B.1 of the *Alaska Guidelines* for examples and additional information on this topic.

In addition, the *Pribilof Guidelines* also address the protection of migratory birds from rats associated with grounded vessels and response vessels (see Section 302.A.2 below).

102. Wildlife Resources.

The *Pribilof Guidelines* focus on two principal wildlife resources -- migratory birds and fur seals (*Callorhinus ursinus*) -- that are at risk during an oil spill in offshore and/or coastal or freshwater. Sections 301.A and 401.A, contain population and distribution information for migratory birds and fur seals, respectively.

As stated above, the information in the *Pribilof Guidelines* for migratory birds and fur seals tiers off information contained in the *Alaska Guidelines* for those species. Wildlife-protection information for other species that occur in the Pribilofs, such as other pinnipeds, sea lions, cetaceans, and terrestrial mammals (e.g., Arctic foxes) may be found in the *Alaska Guidelines*¹. The *Pribilof Guidelines* focus on migratory birds and fur seals because of their susceptibility and vulnerability to oiling and because of the importance of those species biologically and as a subsistence resource.

103. Development of *Pribilof Guidelines*.

The *Pribilof Guidelines* were prepared and submitted in draft form to Pribilof Islands Subgroup members for review and comment. The resulting *Pribilof Guidelines* were then presented to the Pribilof Islands Working Group and the WPWG for review and concurrence. Following incorporation of appropriate comments, the final *Pribilof Guidelines* were submitted to the U.S. Coast Guard (USCG) and the Alaska Department of Environmental Conservation (ADEC) for inclusion in the *Aleutians SCP*.

104. Procedures for Revisions and Updates.

The *Pribilof Guidelines* will be reviewed annually by Pribilof Islands Wildlife Protection contacts and updated as necessary. Review of the document will be coordinated by the U.S. Department of the Interior, Office of Environmental Policy and Compliance. Following review of any proposed changes by Pribilof Islands Wildlife Protection contacts, the revised *Pribilof Guidelines* will be

¹See Appendix 7 of the *Alaska Guidelines* for information on other pinnipeds, sea lions, and cetaceans and Appendix 8 of the *Alaska Guidelines* for information on terrestrial mammals (e.g., Arctic Foxes).

submitted to the WPWG for review and concurrence. Following incorporation of appropriate comments, the final revised *Pribilof Guidelines* will be submitted to the USCG and ADEC for inclusion in the *Aleutians SCP* and subsequent distribution.

105. *Pribilof Guidelines* Organization.

Following the Introduction (Section 100), Section 200 discusses wildlife agency notification of oiled or potentially oiled wildlife. Sections 300 and 400 identify response information specific to the Pribilofs for migratory birds and fur seals, respectively.

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200. Wildlife Resource Agency Notification.

Wildlife resource agency representatives may be notified of oil spills and/or hazardous substance releases in the Pribilofs by Federal and State regulators or by Pribilof representatives as described in the following sections.

201. Notification by Federal and State Regulators.

In the almost all cases, oil spills and/or hazardous substance releases are reported in accordance with existing regulations by the responsible party to ADEC and the USCG or the Environmental Protection Agency (EPA). In turn, information on the incident is provided by ADEC, USCG, or EPA to pre-identified wildlife resource agency representatives.

For spills on St. Paul Island that may require activation of these guidelines, wildlife resource agency representatives will notify local oiled wildlife contacts identified in Table 1.

202. Notification by Island Representatives.

In some cases, the responsible party fails to report oil spills or hazardous substances releases to appropriate regulatory authorities. In those cases, a spill may be first reported by local residents who may observe contaminated beaches, petroleum sheens on the water, and/or unusual wildlife behavior. Unusual wildlife behavior could include seabirds coming ashore during the winter and continually preening, or dead oiled bird carcasses washing up on beaches.

In the event that wildlife have been oiled or may be oiled, local residents on St. Paul Island should immediately contact a local representative identified in Table 1, who in turn, will immediately contact the appropriate wildlife resource agency representatives identified in Table 2. In the event local St. Paul residents are unable to reach a local representative identified in Table 1, the local residents should immediately contact the appropriate wildlife resource agency representative identified in Table 2. Because no local oiled wildlife contacts have been identified for St. George Island, in the event that St. George Island wildlife have been oiled or may be oiled, local St. George residents should immediately contact the appropriate wildlife resource agency representative identified in Table 2.

TABLE 1

LOCAL OILED WILDLIFE CONTACTS: ST. PAUL ISLAND

TRIBAL GOVERNMENT OF ST. PAUL	TANADGUSIX CORPORATION	CITY OF ST. PAUL
<p><u>Primary Contact:</u> Phillip A. Zavadil (Wk) 907-546-2641/2642 (Hm) 907-546-2206 (Fax) 907-546-2655</p> <p><u>Alternate Contact:</u> Mark Rukovishnikoff, Sr. (Wk) 907-546-2641/2642 (Hm) 907-546-5044 (Fax) 907-546-2655</p>	<p><u>Primary Contact:</u> Anthony Philemonoff (Wk) 907-546-2313 (Hm) 907-546-2317 (Fax) 907-546-2366</p> <p><u>Alternate Contact:</u> Dennis Bourdukofsky (Wk) 907-546-2404 (Hm) 907-546-2615 (Fax) 907-546-2485</p>	<p><u>Primary Contact:</u> Andrey Mandregan (Wk) 907-546-3140 or 546-2331 (Hm) 907-546-2267 (Fax) 907-546-3186</p> <p><u>Alternate Contact:</u> Louis Jones (Wk) 907-546-3171/3172 or 546-2331 (Hm) 907-546-2294 (Fax) 907-546-3191</p>

TABLE 2

WILDLIFE RESOURCE AGENCY CONTACTS: PRIBILOF ISLANDS

MIGRATORY BIRDS (FWS/ADFG)	FUR SEALS (NMFS/ADFG)
<u>FWS Primary Contact:</u> Catherine Berg (Wk) 907-786-3598 (Cell) 907-244-1529 (Hm) 907-694-7379 (Fax) 907-786-3350 <u>FWS 1st Alternate Contact:</u> Phil Johnson (Wk) 907-786-3483 (Hm) 907-345-0300 (Fax) 907-786-3350 <u>FWS 2nd Alternate Contact:</u> John Martin (Wk) 907-235-6546 (Hm) 907-235-6348 (Fax) 907-235-7783	<u>NMFS Primary Contact:</u> Brad Smith (Wk) 907-271-3023 (Hm) 907-248-4211 (Fax) 907-271-3030 <u>NMFS Alternate Contact:</u> Dave Cormany (Wk) 907-271-3024/ 907-546-2574 (Hm) 907-278-6002 (Fax) 907-271-3030
<u>ADF&G Primary Contact:</u> Mark Fink (Wk) 907-267-2338 (Hm) 907-337-7933 (Fax) 907-267-2464 <u>ADF&G Alternate Contact:</u> Jack Winters (Wk) 907-459-7285 (Hm) 907-479-2320 (Fax) 907-456-3091	<u>ADF&G Primary Contact:</u> Mark Fink (Wk) 907-267-2338 (Hm) 907-337-7933 (Fax) 907-267-2464 <u>ADF&G Alternate Contact:</u> Jack Winters (Wk) 907-459-7285 (Hm) 907-479-2320 (Fax) 907-456-3091

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300. Migratory Birds.

301. General Considerations.

A. Population and Distribution.

The Pribilofs contain bird colonies that include more than 2.7 million birds. Principal colonial species include: murres (thick-billed and common), auklets (least, parakeet, and crested), kittiwakes (black-legged and red-legged), puffins (horned and tufted), northern fulmars, and red-faced cormorants. Auklets, particularly least and parakeet auklets also nest extensively in boulder beach habitats on the Pribilofs. See the Environmental Sensitivity Index maps for the Pribilofs for population estimates by species and concentration areas.

The approximately 1 million murres that breed on St. George Island represent the largest concentration of murres in Alaska and the most numerous colonial species in the Pribilofs. In addition, approximately 85 percent of the world's red-legged kittiwakes breed on the Pribilofs. The Pribilofs house two of only six major breeding concentrations of northern fulmars in Alaska. St. George Island has a major concentration of parakeet auklets for Alaska; together St. Paul and St. George Islands host over 20 percent of the recorded total of parakeet auklets for the state.

A few waterfowl (primarily northern pintails, red-winged teal, and oldsquaws) nest in the Pribilofs. However, significant numbers of sea ducks (e.g., king eiders and harlequin ducks) inhabit offshore and nearshore waters during the winter months. In summer, huge flocks of shearwaters, numbering in the hundreds of thousands, may come close to the Pribilofs as they travel through the Bering Sea.

Together, St. Paul and St. George Islands are of major importance to a subspecies of Rock Sandpipers, which are shorebirds. In addition, the Pribilofs are uniquely important to another shorebird; namely, migrant ruddy turnstones. These birds, most of which breed in north and west Alaska, stage at St. Paul and St. George in the fall on their way to wintering grounds in the central Pacific.

The endangered short-tailed albatross (*Diomedea albatrus*) has been seen in the waters near the Pribilofs; however, the likelihood of it being present is extremely low. However, the threatened spectacled eider (*Somateria fischeri*) may be present in small numbers near the Pribilofs during the mid-to-late winter months. In addition, the threatened Steller's eider (*Polysticta stelleri*) is present in small to moderate numbers near the Pribilofs during the winter and spring.

B. Potential Oil Spill Impacts.

As discussed in Appendix 6 of the *Alaska Guidelines*, most birds that contact oil die before they can be captured, due to toxic effects from ingested oil and/or hypothermia caused by injury to their plumage. Birds captured alive and taken to treatment centers can often be cleaned, and some can be rehabilitated and released. However, mortality following arrival at a treatment center may be high, due to the effects of oil or stresses associated with treatment and captivity. The proportion of

birds brought to a treatment center that are eventually released can be expected to vary; of the birds released, only a portion can be expected to survive. Therefore, every effort should be made to prevent birds from becoming oiled.

Seabirds exhibit obvious immediate behavioral changes in response to exposure to oil. In particular, they begin preening to clean oil from their feathers. As a result, normal activities such as feeding, nesting, and migrating are abandoned. In addition, the ingestion of oil due to preening or skin contact may have long-term chronic effects on birds' metabolic processes. The severity of those effects will depend on factors including, but not limited to: the species contaminated, health of the birds prior to exposure, type of hydrocarbon, degree and length of exposure, and distribution of oil in the environment.

To date, wide variety of migratory birds have been affected by oil spills. The long-term implication of those effects are just beginning to be understood. Seabirds, such as murres and puffins, that have low reproductive rates may require decades to rebuild population levels to pre-spill numbers.

Bird species exhibit different levels of susceptibility to oiling. Table 3 shows the susceptibility of the species commonly found on the Pribilofs.

302. Response Strategies.

A. Primary Response Strategies.

1. Oil Spills.

The primary response in protecting birds from an oil spill should be to prevent the oil from reaching areas where migratory birds are concentrated. This can be done using either booms and skimmers or, where environmental considerations permit, using chemical dispersants and/or *in situ* burning. Booms and skimmers and *in situ* burning are preferable near concentrations of birds because dispersants, being detergents, reduce the insulating value of their plumage and therefore may cause mortality to some birds. If possible, spraying dispersants directly into large concentrations of birds should be avoided. After dispersants have mixed with water, their danger to birds is reduced, although not eliminated. In addition, oiled debris -- particularly contaminated food sources -- should be removed from the environment as soon as possible to prevent scavenging by birds, which results in secondary effects due to the ingestion of oil. See Section 301.B.2 and Section 302.B.2 of the *Alaska Guidelines* for information on the retrieval and disposition of dead oiled wildlife. Decisions on primary response strategies are made by the Federal On-Scene Coordinator (OSC) with input from wildlife trustee agencies and other interested parties.

Birds concentrate in various areas, depending on the species and season. If possible, the following types of areas where birds concentrate in the spring and fall should be protected following an oil spill:

- Seabird colonies. Birds are vulnerable to oil contamination when they are in large flocks on the water near their colony. This is a common occurrence around the Pribilof Islands during the summer when over 2.7 million birds may be at their respective colonies.

TABLE 3

**MIGRATORY BIRD SUSCEPTIBILITY TO OILING:
SELECTED PRIBILOF ISLANDS SPECIES**

MIGRATORY BIRD SPECIES	SUSCEPTIBILITY TO OILING
Alcids (e.g., Murres, Puffins, Auklets)	High
Sea Ducks	High
Loons	High
Cormorants	High
Gulls, Kittiwakes	Medium
Pelagic Birds (e.g., Albatross, Petrels, Fulmars)	Medium
Plovers, Sandpipers	Low
Song Birds	Low

- Major seabird feeding areas. Most seabirds obtain their food at sea away from land. While they may feed in areas that are close to land or more than 100 miles offshore, they are often concentrated in small areas. As a result, the presence of oil in some feeding areas could disable the majority of seabirds in the region. Feeding areas shift with the tides and seasons, so the position of large flocks fluttering over or sitting on the water should be carefully noted during reconnaissance flights and avoided, if possible, when applying dispersants. Areas near the continental shelf break beyond the Pribilofs should be examined in particular since seabirds often feed in those areas.
- Wintering areas of marine birds. These include localized parts of the Bering Sea and the ice pack edge and open leads in the ice. Concentrations of birds vary during the winter; locations of large flocks should be recorded during reconnaissance flights and avoided, if possible, when applying dispersants. In addition, other important coastal habitats, such as marshes and lagoons (e.g., Salt Lagoon on St. Paul Island) are sensitive to oil contamination and should be protected if at risk from oil contamination, even when no birds are present.

As outlined in Section 301.B.1.a. of the *Alaska Guidelines*, field activities associated with oil spills have the potential for causing unnecessary and illegal disturbance to sensitive migratory bird species and their habitats. To reduce disturbance and improve the chances for migratory bird survival, FWS and/or ADF&G representatives (as appropriate) will reiterate, through the Federal Aviation Administration (FAA) and the Federal OSC, the importance of abiding by existing notices to aircraft currently in place for the Pribilofs. Those advisories request pilots to remain at a certain distance from migratory bird concentration areas and critical habitats, such as seabird cliffs. Information on aircraft advisories for St. Paul and St. George Islands, respectively, may be found on Environmental Sensitivity Index maps for the islands.

In addition, FWS and/or ADF&G representatives (as appropriate) will provide, through the USCG, notices to mariners for areas affected by an oil spill. These advisories may request vessel operators to remain at a certain distance from migratory bird concentration areas and critical habitats, such as seabird cliffs. See Appendix 9 of the *Alaska Guidelines* for an example of a vessel advisory.

Copies of any advisories will be sent by the Federal OSC to all federal and state agency and agency-contracted spill-response personnel. In addition, a news release will be prepared by FWS and/or ADF&G representatives (as appropriate) on this subject for distribution by the Federal OSC to appropriate news media representatives (see Appendix 9 of the *Alaska Guidelines* for an example).

During a response to an oil spill, appropriate wildlife resource agencies will evaluate the potential for response activities to negatively affect sensitive migratory birds and/or their habitats. Wildlife resource agencies may recommend to the Federal OSC that response activities in or adjacent to sensitive species or areas be completed prior to or following critical biological

periods. If that is not possible, wildlife resource agencies may further recommend to the Federal OSC that agency on-site monitors accompany near-shore and/or shore-based activities to help minimize or eliminate unacceptable levels of disturbance.

B. Rats.

Most of Alaska's islands, including the Pribilofs, are "rat free". The introduction of rats, which has occurred on approximately 30 Alaska islands, typically results in the decimation of the islands' seabird colonies, since the rats prey on nesting birds and their eggs. Once they are established on an island, rats are difficult, if not impossible to eradicate.

The most likely pathway for rats to be introduced to the Pribilofs as a result of an oil spill is through the grounding of a vessel onshore or grounding of a vessel sufficiently close to shore that rats aboard the vessel could swim to shore. In addition, it is also possible for rats to drift to the Pribilofs onboard vessel debris. Vessel groundings in the Pribilofs are not uncommon; since 1987, eight vessels groundings have occurred. In addition, vessels and aircraft responding to an oil spill could also inadvertently introduce rats to the islands. If the event of an oil spill that includes the use of response-related aircraft and that may contain rats, FWS representatives will provide the Federal OSC with rat prevention information that will in turn be provided to appropriate spill-response-related aircraft operators.

If a vessel operating in the Pribilofs experiences an emergency that results or may result in the vessel going aground, FWS representatives or a designated representative will seek, with the assistance of the Federal OSC, information from the vessel operator/owner on whether rats are onboard. If the vessel is safe to board, FWS representatives or a designated FWS on-scene representative will conduct an onboard inspection of the vessel to determine if rats are present. If rats are known or suspected to exist onboard the vessel, FWS representatives or a designated FWS on-scene representative will deploy rodent traps and/or poisons on the vessel, if possible, prior to or following the vessel grounding. A list of rat prevention equipment and materials currently stockpiled in the Pribilofs is provided in Table 4. A list of individuals in the Pribilofs who have been trained to use rodent poisons is provided in Table 5.

In the event it is not possible to conduct onboard rat inspection and prevention activities prior to a vessel going aground, FWS representatives will develop a rat prevention plan specific to the incident for approval by the Federal OSC. The plan will include, but not be limited to, the deployment of rat trap and poison stations in appropriate locations on the vessel and the island, individual(s) authorized to deploy and monitor the stations, and a station monitoring plan.

B. Secondary Response Strategies.

Section 300 of the *Alaska Guidelines* outlines the procedures that wildlife resource agencies and responsible parties must follow to initiate and implement a bird hazing program. These procedures include the use of Appendix 24 of the *Alaska Guidelines* ("Oil Spill Response Checklist: Wildlife Hazing"). Appendix 16 of the *Alaska Guidelines* identifies State and Federal

TABLE 4**RAT PREVENTION EQUIPMENT AND MATERIALS STOCKPILED IN
THE PRIBILOF ISLANDS²**

LOCATION	TYPE OF KIT	KIT OWNER	CONTACT PERSON
ST. PAUL ISLAND NMFS Staff Quarters (room 29 and attic)	1 Shipwreck Kit	Fish and Wildlife Service	Karin Holser Fish and Wildlife Service (wk) 907-546-3190 (hm) 907-546-9913 OR Mark Rukovishnikoff, Sr. Tribal Govt. of St. Paul (wk) 907-546-2641/2642 (hm) 907-546-5044 OR Phillip A. Zavadil Tribal Govt. of St. Paul (wk) 907-546-2641/2642 (hm) 907-546-2206 (hm) 907-546-2439
ST. PAUL ISLAND Old Power Plant Building	Harbor Kits	Tribal Government of St. Paul	Mark Rukovishnikoff, Sr. OR Phillip A. Zavadil OR Karin Holser (see contact information above)
ST. GEORGE ISLAND Washhouse Carpentry Shop	1 Shipwreck Kit	Fish and Wildlife Service	Kent Sundseth Fish and Wildlife Service (wk/hm) 907-859-2277 (wk/hm) 907-859-2233

²The City of St. George also has rat prevention equipment and materials.

TABLE 5

PRIBILOF ISLAND RESIDENTS WITH RODENTICIDE TRAINING

INDIVIDUAL	LOCATION	RODENTICIDE TRAINING EXPIRATION
Bittner, Tonia	St. Paul Island	April 2001
Holser, Karin	St. Paul Island	May 2004
Jones, Dustin J.	St. Paul Island	December 2001
Jones, Louis	St. Paul Island	September 2003
Melovidov, Igor	St. Paul Island	December 2001
Melovidov, Steven D.	St. Paul Island	July 2001
Rukovishnikoff, Sr. Mark	St. Paul Island	September 2003
Zavadil, Phillip A.	St. Paul Island	July 2001

permits and/or authorizations required for hazing live animals. At this time, there are no entities in the Pribilofs who are pre-permitted to conduct bird hazing activities. Appendix 17 of the *Alaska Guidelines* lists equipment and materials suggested for inclusion in a migratory bird hazing kit.

Table 6 identifies equipment and materials currently stockpiled on St. Paul and St. George Islands for deterring oiled birds, and the appropriate contact person. Table 7 identifies Pribilof Island residents who have received bird hazing training.

C. Tertiary Response Strategies.

Section 300 of the *Alaska Guidelines* establish the procedures that wildlife resource agencies and responsible parties must follow to initiate and implement a bird capture, stabilization, and treatment program. These procedures include the use of Appendix 1 of the *Alaska Guidelines* (“Factors that Must Be Considered when Determining when to Begin and End a Wildlife Capture and Treatment Program”) and Appendix 25 of the *Alaska Guidelines* (“Oil Spill Response Checklist: Wildlife Capture, Transportation, Stabilization, and Treatment”). Appendix 16 of the *Alaska Guidelines* identifies State and Federal permits and/or authorizations required for collecting and holding live animals. At this time, there are no entities in the Pribilofs who are pre-permitted to capture and treat oiled birds.

Appendix 19 of the *Alaska Guidelines* provides a list of equipment and materials and their estimated costs for a capture/stabilization kit for approximately 25 migratory birds. Table 8 identifies equipment and materials currently stockpiled on St. Paul Island for capturing and stabilizing oiled birds, and the appropriate contact person. There are currently no bird capture and stabilization equipment and/or supplies warehoused on St. George Island.

Tables 9A and 9B identify potential facilities that could be used for bird stabilization on St. Paul and St. George Islands, respectively, in addition to the contact number. In the event a migratory bird capture program is initiated, the availability of one or more of these facilities for bird stabilization must be verified at that time. Following stabilization, oiled birds will be flown to Anchorage for treatment.

303. Wildlife Resource Agency Contacts.

See Section 200 for information on wildlife resource agency contacts in the event that birds are oiled or potentially oiled in the Pribilofs.

TABLE 6

**EQUIPMENT AND MATERIALS STOCKPILED
IN THE PRIBILOF ISLANDS FOR DETERRING UNOILED BIRDS**

LOCATION	AMOUNT OF SUPPLIES	ESTIMATED BIRDS TO BE ASSISTED WITH SUPPLIES	CONTACT PERSON/OWNER
ST. PAUL ISLAND City of St. Paul, Public Works Department	1 shotgun/cracker shell hazing kit ³	Birds at 1 onshore location	Louis Jones City of St. Paul (wk) 907-546-3171/3172 (hm) 907-546-2294
ST. PAUL ISLAND Delta Western Fuel Facility	1 screamer/banger hazing kit	Birds at 1 onshore location	Dennis Bourdukofsky Delta Western (wk) 907-546-2404 (hm) 907-546-2615
ST. PAUL ISLAND AMNWR* Office, Old Public Works Building	1 shotgun/cracker shell hazing kit Mylar tape (12 rolls) 2 propane cannons (minus propane tanks)	Birds at 1 onshore location Birds at 1 onshore location	Karin Holser Fish and Wildlife Service (wk) 907-546-3190 (hm) 907-546-9913
ST. GEORGE ISLAND Delta Western	1 shotgun/cracker shell hazing kit Mylar tape (12 rolls)	Birds at 1 onshore locations	Laurence Lestenkof Delta Western (wk) 907-859-2456 (hm) 907-859-2318
ST. GEORGE ISLAND Fish and Wildlife Service, Room above Store	1 shotgun/cracker shell hazing kit	Birds at 1 onshore location	Kent Sundseth Fish and Wildlife Service (wk/hm) 907-859-2277 (wk/hm) 907-859-2233

*AMNWR = Alaska Maritime National Wildlife Refuge

³See Appendix 17 of the *Alaska Guidelines* for a list of the equipment and materials suggested for inclusion in the kit.

TABLE 7**PRIBILOF ISLAND RESIDENTS WITH BIRD HAZING TRAINING**

INDIVIDUAL	LOCATION	EMPLOYER	HAZING TRAINING DATE COMPLETED
Cormany, Dave	St. Paul Island	NMFS	April 17, 1998
Edelen, Fred	St. Paul Island	Pen Air	March 22, 1995
Holser, Karin	St. Paul Island	St. Paul Stewardship Program	April 17, 1998
Jones, Louis	St. Paul Island	City of St. Paul	March 22, 1995
Kochutin, Anthony J.	St. Paul Island	City of St. Paul	March 22, 1995
Krukoff, Sr., Neon H.	St. Paul Island	Tanadgusix Corporation	March 22, 1995
Lee, Jason	St. Paul Island	Unisea	March 22, 1995
Lestenkof, Gregory	St. Paul Island	Zee's Cab	March 22, 1995
Lestenkof, Sr., Matthew	St. Paul Island	City of St. Paul	March 22, 1995
Lestenkof, Jr., Jonas	St. Paul Island	City of St. Paul	March 22, 1995
Melovidov, Myron	St. Paul Island	City of St. Paul	March 22, 1995
Merculief, Jason	St. Paul Island	City of St. Paul	March 22, 1995
Rukovishnikoff, Andrew W.	St. Paul Island	City of St. Paul	March 22, 1995
Rukovishnikoff, Metrofan	St. Paul Island	- - -	March 22, 1995
Stepetin, Larry	St. Paul Island	Tanadgusix	March 22, 1995
Tran, Kevin	St. Paul Island	Unisea	March 22, 1995
Merculief, Grace	St. George Island	- - -	April 17, 1998
Kent Sundseth	St. George Island	NMFS	April 17, 1998

TABLE 8

EQUIPMENT AND MATERIALS STOCKPILED IN THE PRIBILOF ISLANDS FOR CAPTURING AND STABILIZING OILED BIRDS

LOCATION	WILDLIFE SPECIES/ RESPONSE ACTION	AMOUNT OF SUPPLIES	ESTIMATED BIRDS TO BE ASSISTED WITH SUPPLIES	CONTACT PERSON/OWNER
ST. PAUL ISLAND AMNWR* Office, Old Public Works Building	Bird capture Bird stabilization	20 boxes; 3 capture nets on poles 3 boxes towels/sheets; 8, 1- qt. bottles Pedialyte; 24 8-oz. Cans Ensure; 2 60cc feeding tubes; bottle for eye washing	20 to 30 birds 24 birds	Karin Holser Fish and Wildlife Service (wk) 907-546-3190 (hm) 907-546-9913

* AMNWR = Alaska Maritime National Wildlife Refuge

TABLE 9A

POTENTIAL BIRD STABILIZATION FACILITIES:
ST. PAUL ISLAND

FACILITY	UTILITIES: HEAT, ELECTRICITY, PLUMBING?	OWNER	CONTACT INFORMATION
Old Combine Shop	Yes/Yes/Yes	Tanadgusix Corporation	Ron Philemonof (wk) 907-546-2312
Old Machine Shop	No/Yes/Yes	Tanadgusix Corporation	Ron Philemonof (wk) 907-546-2312
Cascade Building	No/Yes/Yes	Tanadgusix Corporation	Ron Philemonof (wk) 907-546-2312
Poss Camp	Yes/Yes/Yes	Tanadgusix Corporation	Ron Philemonof (wk) 907-546-2312
Machine Shop	Yes/Yes/Yes	City of St. Paul	John Merculief (wk) 907-546-2331
Recreation Hall	Yes/Yes/Yes	City of St. Paul	John Merculief (wk) 907-546-2331
Trident Warehouse	Yes/Yes/No	Trident Seafoods	Travis Young (wk) 907-546-2377
Unipak Building	No/Yes/Yes	Trident Seafoods	Travis Young (wk) 907-546-2377
Trailers	Yes/Yes/Yes	Trident Seafoods	Travis Young (wk) 907-546-2377
School Gym	Yes/Yes/Yes	Pribilof Islands School District	James Carden (wk) 907-546-2222
NOAA Warehouse	No/Yes/No	National Weather Service	Kristina Sumral (wk) 907-546-2215
Old Church	Yes/Yes/Yes	Assembly of God	[Not available]
Garco	No/Yes/No	National Marine Fisheries Service	Dave Cormany (wk) 907-271-3024/ 907-546-2574
NMFS Lab	Yes/Yes/Yes	National Marine Fisheries Service	Dave Cormany (wk) 907-271-3024/ 907-546-2574

TABLE 9B

**POTENTIAL BIRD STABILIZATION FACILITIES:
ST. GEORGE ISLAND**

FACILITY	UTILITIES: HEAT, ELECTRICITY, PLUMBING?	OWNER	CONTACT INFORMATION
Wash House	Yes/Yes/Yes	National Oceanic and Atmospheric Administration ⁴	Dave Cormany (wk) 907-271-3024/ 907-546-2574
Warehouse	No/Yes/No	City of St. George	John Alder (wk) 907-859-2212
Fish Plant	Yes/Yes/Yes	St. George Tanaq Corporation	Andronik Kashevarof (wk) 907-859-2255
Blue Hangar	Yes/Yes/No	City of St. George ⁵	John Alder (wk) 907-859-2212
Warehouse	No/No/No	St. George Tanaq Corporation	Andronik Kashevarof (wk) 907-859-2255
Harbor Master Building	No/Yes/Yes	City of St. George	John Alder (wk) 907-859-2212
Carpenter Shop	Yes/Yes/Yes	St. George Tanaq ⁶ Corporation	Andronik Kashevarof (wk) 907-859-2255
School Gym	Yes/Yes/Yes	Pribilof School District	James Carden (wk) 907-546-2222

⁴Building is presently undergoing structural stabilization, which should be completed by September 1999.

⁵Building is presently being used by South Coast Construction, Inc.

⁶Building is presently being used for NOAA cleanup projects.

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400. Northern Fur Seals.

401. General Considerations.

A. Population and Distribution.

The Pribilofs provide breeding grounds for approximately 80 percent of the world's population of northern fur seals. Hundreds of thousands of these animals return to the Pribilofs each summer to give birth and breed. The world population of the northern fur seal is estimated at 1.3 million. The U.S. population was estimated at approximately 984,000 in 1992. While the Pribilof Island population of northern fur seals is currently stable, based on pup production estimates, the overall numbers remain low and the species is listed as depleted under the Marine Mammal Protection Act.

Northern fur seals are highly migratory and range along a broad arc across the north Pacific from the Sea of Japan through the southern Bering Sea to the Channel Islands (i.e., San Miguel Islands) off southern California. With the exception of the San Miguel breeding population, the animals migrate north in the spring to several island complexes. Each year, the majority of these animals use several discrete shoreline locations on the Pribilofs for mating, pupping, and non-breeding landing sites. Together these sites are referred to as rookeries.

Important rookeries on St. Paul Island are found from Zapadni Point to Tolstoi Point (i.e., English Bay rookeries), along the shoreline of the peninsula south of the City of St. Paul (i.e., Reef Point and Sea Lion Rock Rookeries), from Black Bluffs to north of Lukanin Point (i.e., Kitovi and Lukanin Rookeries), along the eastern shoreline near Polovina Point (i.e., Polovina Rookeries), and along both shorelines of the northernmost tip of the island (i.e., Northeast Point Rookeries). St. George Island also has several important northern fur seal rookeries found along the north coast from First Bluffs to the City of St. George (i.e., Staraya Artil and North Rookeries), east of the city toward Tolstoi Point (i.e., East Rookeries), and along the southwest coast from the harbor directly south (i.e., Zapadni and South Rookeries). It should also be noted that non-breeding northern fur seals also land at Otter and Walrus Islands. See Environmental Sensitivity Index maps for rookery locations in the Pribilofs.

Large numbers of northern fur seals are found in nearshore waters of the Pribilofs during the periods in which the beaches are occupied. Pups are found along the shoreline and in tide pools as they are learning to swim. The boat harbor and adjacent Salt Lagoon on St. Paul Island may contain up to 1,000 northern fur seal pups from September through November.

Adult male northern fur seals arrive at the breeding sites on the Pribilofs in mid-May. Adult males aggressively defend their territories from mid-May through August, and are likely to charge anyone entering the rookery. Adult females arrive in mid-June and are present on the rookeries until December. Adult female northern fur seals are aggressive and are also likely to charge if cornered. Juvenile northern fur seals arrive in mid-May and may be present in groups of 100 or less during December, and are gone by January. Juvenile northern fur seals and pups normally avoid humans

on land and in some cases will stampede towards the water, however, they are also likely to attack if cornered or handled.

While northern fur seals are no longer hunted commercially, they continue to be an important subsistence food source to the native Aleut communities on St. Paul and St. George Islands. Approximately 1,800 sub-adult males are harvested each summer by the Pribilof Island residents.

B. Potential Oil Spill Impacts.

In the event of an oil spill contacting either St. Paul or St. George Islands during the breeding period, a maximum of approximately 75 to 80 percent of the Pribilof fur seal population could be vulnerable. A significant oil spill during that time period could have major impacts to many of the animals feeding around the islands, as well as to those animals on or near rookeries. This assumption is reinforced by work conducted by Minerals Management Service for a March 1987 analysis of the potential effects of offshore oil production near the Pribilofs. One-twentieth of the potential loss from the oil spill simulation in the St. Paul scenario alone would be a major environmental incident (more than 1,200 fur seals killed) and would overwhelm any potential northern fur seal rehabilitation capabilities.

The thick pelage of northern fur seals constitutes the principle element of their thermoregulatory mechanism, which restricts heat loss to the surrounding environment. Oiling has been shown to increase the thermal conductance of the pelts 1.4 to 2.0 times. A light oiling (about 30 percent of the pelt surface) has been shown to result in an approximately 50 percent greater heat loss when the northern fur seals are immersed in water. The consequence of any loss of insulation will vary with individual animals. Newborn pups are generally the most vulnerable, particularly when the mother leaves the rookery typically for several days to forage. The physical condition of animals will also cause variable effects from any oiling. Young pups, breeding males just returning to sea, and lactating females probably have less fat for insulation than other segments of the population and therefore may be most susceptible to the negative effects of oiling.

From June to December, northern fur seals concentrate on the breeding grounds of the Pribilofs. Sub-adult animals, adult females, and non-breeding males all frequently return to the sea to feed during this period, and could be exposed to floating oil. By early September, all animals including pups regularly enter the water and would be potentially vulnerable to a marine spill. Fur seal pups often congregate in tidal pools and shallow nearshore waters where oil may become trapped or concentrated. The risk of oiling may therefore be greater to pups than adults.

Inhalation of petroleum product vapors may result in increased levels of hydrocarbons within blood and tissues of pinnipeds, including northern fur seals. The toxic effect of inhalation may be serious, particularly during the first few hours of a spill when volatile fractions are given off, or for spills of refined products (i.e., gasoline or diesel fuel), which contain higher percentages of these compounds. Possible effects include lethargy, sickness, and destruction of the central nervous system. Exposure to high concentrations of volatiles may result in the mortality of some northern fur seals.

Direct exposure to hydrocarbons has been observed to cause irritation to eyes and mucous membranes in pinnipeds. Ingestion of oil may also have deleterious effects, although it is not anticipated that this would be a significant concern for northern fur seals.

In the event that an oil spill approaches or contacts a rookery, clean up efforts may be directed to both nearshore and offshore regions. Disturbance to northern fur seals may result from the presence of oil-spill response workers and associated aircraft, vessel, and ground support vehicles. Northern fur seals may respond to human presence by immediate departure from the area. Prolonged or intense disturbance could result in abandonment of the site. Disturbance during the breeding season could result in increased mortality of fur seal pups due to disrupted nursing, early weaning, or crushing due to stampedes of frightened animals.

402. Response Strategies.

A. Primary Response Strategies.

Primary response measures are the most effective and realistic means of protecting and maintaining the Pribilof's northern fur seals. The National Marine Fisheries Service (NMFS) is currently researching various countermeasures to prevent spills from contacting pinnipeds, including northern fur seals, and their habitat and to remove hydrocarbons from contaminated beaches. Sorbent materials such as pads and sausage booms are effective when used on refined product spills, such as diesel and gasoline. These devices would be the first line of defense for spills in the St. Paul and St. George boat harbors and in Salt Lagoon on St. Paul Island. Heavier oils such as crude or Bunker C may be picked up with containment booms, oleophilic materials such as pom poms, and natural sorbent materials. A peat moss-based material, Sphag-sorb, was successfully used on a February 1997 oiled fur seal rookery in Uruguay and has now been stockpiled on St. Paul Island, as shown in Table 10.

High-volume, low pressure flushing with ambient temperature water may be the most effective means of oil removal from many Pribilof shorelines. High temperature/high pressure washing is discouraged, as it may change the substrate on a rookery beach and may also alter the ability of a fur seal to locate a rookery using its sense of smell.

The use of chemical shoreline cleaning agents has been shown to be only marginally effective, and introduces additional chemicals and odors onto the rookeries. Therefore, NMFS does not support the use of chemical shoreline cleaning agents on fur seal beaches.

As outlined in Section 301.B.1.a. of the *Alaska Guidelines*, field activities associated with oil spills have the potential for causing unnecessary and illegal disturbance to fur seals and their habitats. To reduce disturbance and improve the chances for fur seal survival, NMFS and/or ADF&G representatives (as appropriate) will reiterate, through the FAA and Federal OSC, the importance of abiding by existing notices to aircraft currently in place for the Pribilofs. Those advisories request pilots to remain at a certain distance from fur seal concentration areas and critical habitats,

TABLE 10**MATERIALS STOCKPILED IN THE PRIBILOF ISLANDS FOR FUR
SEAL PROTECTION**

LOCATION	AMOUNT OF SUPPLIES	CONTACT PERSON/OWNER
ST. PAUL ISLAND Garco Building	1,400 30-pound bags of Sphag-sorb	Dave Cormany National Marine Fisheries Service (wk) 907-271-3024/907-546-2574 (hm) 907-278-6002 OR Karin Holser Fish and Wildlife Service (wk) 907-546-3190 (hm) 907-546-9913 OR Elizabeth Sinclair National Marine Mammal Laboratory (wk) 206-526-6466 (hm) 206-524-2844

such as rookeries. Information on aircraft advisories for St. Paul and St. George Islands, respectively, may be found on Environmental Sensitivity Index maps for the islands.

In addition, NMFS and/or ADF&G representatives (as appropriate) will provide, through the Federal OSC, notices to mariners for areas affected by an oil spill. These advisories may request vessel operators to remain at a certain distance from fur seal concentration areas and critical habitats. See Appendix 9 of the *Alaska Guidelines* for an example of a vessel advisory.

Copies of any advisories will be sent by the Federal OSC to all federal and state agency and agency-contracted spill-response personnel. In addition, a news release will be prepared by NMFS and/or ADF&G representatives (as appropriate) on this subject for distribution by the Federal OSC to appropriate news media representatives (see Appendix 9 of the *Alaska Guidelines* for an example).

In addition, oiled debris -- particularly contaminated food sources and dead oiled fur seals -- should be removed from the environment as soon as possible to prevent scavenging by other wildlife, which may result in secondary effects due to the ingestion of oil. See Section 301.B.2 and Section 302.B.2 of the *Alaska Guidelines* for information on the retrieval and disposition of dead oiled wildlife.

B. Secondary Response Strategies.

It may be feasible to deter northern fur seals from a particular area in some situations. Spills within the St. Paul Island harbor and Village Cove area may put several hundred northern fur seals at risk, many of which are likely to be pups or juveniles. NMFS personnel or other designated individuals may use seal bombs to prevent these animals from entering oiled areas of the harbors.

Likewise, northern fur seals may be herded by small boats into the outer portions of Village Cove or into Salt Lagoon. It may also be possible to move animals off or to one portion of a beach or rookery to prevent oiling or to clean up oiled shorelines. However, this would not be feasible for territorial animals and would risk separating mother/pup pairs. Because pups in the harbor are not suckling, mother-pup reunions would not be disrupted during any hazing efforts. Only on-site NMFS personnel will be authorized to initiate and direct any deterrent actions in order to avoid driving animals into oiled areas, causing stampedes or large flight reactions into the water, or increasing metabolic stress.

C. Tertiary Response Strategies.

The *Alaska Guidelines* recognize that capture and cleaning of oiled northern fur seals is generally not feasible. Adult northern fur seals are aggressive by nature, particularly territorial males, and typically could not be safely approached while ashore. It is not presently known to what extent an adult fur seal would be affected by oiling, and most efforts to capture are likely to present greater risk to the animal. Tranquilization, for example, may itself cause the death of an animal even when administered by a veterinarian, and would certainly diminish an animal's resistance to the effects of oiling and exposure. In addition, transportation of animals across rough terrain to treatment centers would also be difficult or impossible, and very dangerous to personnel. Finally, many logistical

requirements for the treatment of northern fur seals, such as a large heated building, holding pens for large animals, and high-capacity hot water systems, cannot be met at this time on the Pribilofs.

Although fur seal pups could be captured during certain times of the year, such actions would rarely be justified. Seal pups are wholly dependent upon their mother's milk and cannot digest solid food. Pups removed from a rookery for several days may never reunite with their mothers and would likely die of starvation. If pups were transferred off-island for treatment, the mother-pup bond would be lost. During the 1997 T/V *San Jorge* spill in Uruguay, oiled fur seal pups left on site continued to receive attention and be suckled. If northern fur seal pups are oiled, their condition may improve after they molt in September and October.

Past attempts to rehabilitate oiled pinnipeds have been very expensive and not very successful. When time, labor, and resources are limited, captive cleaning and rehabilitation would not only be of dubious value, but could detract from more humane or effective measures such as hazing, booming, and oil recovery. Humane euthanasia under the supervision of a veterinarian should be followed to alleviate suffering for individual animals with no chance of survival.

403. Wildlife Resource Agency Contacts.

See Section 200 for information on wildlife resource agency contacts in the event that northern fur seals are oiled or potentially oiled in the Pribilofs.